

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY W. F. ROBERTS.

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This publication is the successor of the late AMERICAN FARMER.
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American Farmer Establishment.

BALTIMORE: TUESDAY, Nov. 24, 1825.

OUR SILK MANUAL.

We have compressed, by the free use of *double columns, a large page, and suitable type*, into a pamphlet of 72 pages, as much matter as would make two large octavo volumes in the fashionable method of book making, our object being to get as much as possible into a small compass, in order that we might sell the work at a price so moderate as to place it at once within the reach of all. We have, therefore, fixed its price at 50 CENTS, a sum so inconsiderable, that every one, who so inclines, may obtain a copy. We feel certain that if the subject is properly estimated by agriculturists, that the Silk Culture is calculated to make a great moral and physical change over the whole face of our country, and to banish penury from the door of every farmer in this land, who has enterprise and industry enough to enter into it.—Our great object in the compilation of our work, has been the advancement of the comfort, and consequent happiness, of poor females, destitute children, and the decrepit aged, of both sexes, and we do hope that from the affluent of the gentler sex, we shall receive such auxiliary aid, as will ensure to the culture an onward course. Should they interest themselves with their fathers, husbands and other male relatives, it must succeed; for no one can resist an appeal addressed to the heart by a female advocate, whose eloquence and feeling may have been aroused into action by the noble motive of doing good.

We continue the able paper of M. Purvis, on the use of lime as applied to the purposes of agriculture, and respectfully call the attention of our readers to it.

This being the season for planting bulbous roots, we would remind the lovers of flowers, that R. Sinclair, Jr. is in the expectation of daily receiving an invoice of the most choice bulbs ever imported into this country.

Let no agriculturist omit planting out select fruit and ornamental trees during this, the best month in all the year for such work.

VALUE OF SILK STOCK.

We understand that the stock of the Rhode Island Silk Company, an account of which we publish in this day's paper, has advanced 100 per cent. upon its par value. This is a very strong evidence of the confidence of the people of the east, in the productive character of the Silk Culture, and we trust will serve to awaken a spirit of enterprise in that region of genial sun and soil, which seems to have been marked out by nature as the home of the worm and the land of the Mulberry.

ORNAMENTAL TREES.

Among the numerous trees that are planted for ornament or shade, there is none more entitled to the consideration of the gentleman of taste and refinement, than the *Morus alba*, the *White Indian Mulberry*. It is beautifully straight in its stem; its lateral branches are numerous, and form a far-stretching and graceful circle, and when arrived at maturity, the tree is as large as most of the forest trees. It is quick of growth, hardy, tenacious of life, and makes as durable posts as almost any other tree to be found. In addition to its other good qualities, it is a clear tree, and with a few years pains will form an invaluable live-fence, being impenetrable; as a hedge, to horses, cattle, hogs or sheep.

There is, in our estimation, no tree better adapted to be grown in a lane, or one so well calculated to beautify the main approach to a homestead, or any other large establishment.

In publishing our project for the establishment of a "Pattern Farm," the editor of the *Salem (N. C.) Reporter*, makes the following approbatory remarks, which we subjoin, because we are gratified to find that we are sustained in our estimation of the importance of the measure by the able conductor of that print. Upon the utility of such an establishment, we have never entertained but one opinion, and that is, that it would exercise the most wholesome influence over the business of agriculture. We know that there is a prejudice, and probably a just one, against *mere theoretical farmers*—but our plan embraces nothing which could lead to any such result as the education of *mere theorists*. It contemplates the combination of *theory with practice*; the application of those great fundamental principles of chemistry to the

business of husbandry, which properly belong to it, and which enable the agriculturist, at a single view, to determine the course, which a just and enlightened economy would suggest, in the management of his soil, and the cultivation of his crops. Knowledge never injured any one; it will neither break a limb nor pick a pocket: no one ever yet was made a bad citizen by being *thoroughly* instructed in his occupation. We repeat it, *knowledge* never yet injured any one: *cunning*, we admit, may beget the desire of living by one's wits; but then "*knowledge*" and "*cunning*" are words as dissimilar in their import as any two words can be. The tendency of the one, is to make men *better*, that of the other, to vitiate the morals, and mould its possessor into a shuffling trickster—an over-reaching knave. We would ask, is there any just reason why agriculture, as well as any other branch of human science, should not have its *schools of instruction*? *Physic*, *law*, and the *languages*, have, and properly too, each their *Colleges*, *Universities*, and *associations*, so also has *Theology*. *Mechanics* have their *institutes*, their *Trades' Unions*, and other *societies*.—The *Merchants* have their *chambers of commerce*. In fact, each and every department and pursuit of life, seem to have been more tenacious of their interests, and to have promoted them better than that of agriculture. It is true, that *Agricultural Societies* do exist in many of the states; but then these are individual compacts, acting in a confined sphere, and although they operate most beneficially in creating a laudable spirit of emulation and improvement, yet, from their very nature, they must necessarily stop short of that greatest good, which we wish to see at work. We desire that, in each state, there shall be established an *Agricultural School*, to be connected with a *farm*, whereon the students shall labor and learn, *practically*, the use and value of those great principles, which we would have taught therein. Without further remark, we annex the article alluded to:

[From the *North Carolina Salem Reporter*.]

PATTERN FARM.—The reader will find in our agricultural columns an article, copied from the *Farmer and Gardener*, under the head of "Pattern Farm," to which we solicit an attentive perusal. It will be seen that the Hon. Judge *Barbour*, of Virginia, has submitted to the people of that State a proposition to found a *Professorship of Agriculture* in her *University*, &c.

The project of such an establishment is submitted to the people of the United States by the Editor of the Farmer and Gardener. The subject needs only a fair and impartial investigation, and its utility and importance will be obvious to all—while it must be admitted, by every candid person, that the long practised system of cultivation in our country is much in want of reformation.—It should be one of the primary objects of every rational being to aid in bringing about a remedy to improve this all important department of human industry—AGRICULTURE.

We earnestly submit the subject of a "Pattern Farm," to the consideration of the citizens of this State, believing it to be a powerful measure to bring about, in a short time, an improvement in the principles of the cultivation of our soil, by dissemination throughout the State the most approved modes of culture.

We feel confident that the subject is worthy of the favorable notice of every citizen of this State; and that, should a Professorship of Agriculture be founded in our University, on the plan submitted by the Farmer and Gardener, or any similar one, its effects might produce more Wealth, Happiness, and Contentment, than any project ever brought before the people of North Carolina.

* It is not the Judge, but his patriotic brother, Governor Barbour.

A GREAT YIELD OF CORN.

The Zanesville, Ohio, Gazette of the 12th inst. contains the following article, which we do hope will stimulate the corn growers throughout the country to emulate Mr. Renick. His land was doubtless a rich bottom of alluvion soil; but then even with ordinary land, much may be done in the way of melioration. Lime, ashes, weeds, leaves, stable manure, and the countless other materials which enter into the composition of the food of plants, will do much to bring up the low standard of production which obtains on a majority of the corn growing lands. Much of which does not produce more than 3 and 4 barrels to the acre, and when from 5 to 8 barrels are harvested, it is considered, in many parts, a wonderful crop; and in truth, as matters now stand, so it is. Forty bushels to the acre is considered a profitable crop; but if 157 bushels can be raised on an acre, the average crop on good lands, (and all lands may be made good) should be brought up to the standard of 100 bushels to the acre. We have always thought there was too much space between the rows of corn, and this, and many other proofs within our knowledge, go to confirm our belief. The giving of this premium by the Agricultural Society, of Pickaway county, Ohio, reminds us that the whole western shore of Maryland, is without a single Agricultural Society. This thing should not be so; their patriotic brethren on the eastern shore have managed their affairs better; they have kept their society in active ex-

istence, dispensing its lights of husbandry in every direction, and doing good that blessings may follow in their train.

By the way, we hope to see a new face put upon the husbandry of the *Eastern shore*. With the aid of their inexhaustible beds of *shell marl*, and *green sand*, should they adopt the mulberry and silk culture, there is nothing to prevent the citizens of that beautiful peninsula, from making it the garden spot of America. We have already made our article somewhat in shape and size like a lady's postscript, or we would dwell more at large upon the local advantages of that interesting portion of our brave little state.

A premium of Ten Dollars was awarded on Monday 26th ult., at the Agricultural fair in Circleville, to Mr. Asahel Renick, for the best acre of corn, *one hundred and fifty-seven bushels, and one peck!* The corn grew on Darby creek bottom, in Pickaway county, and received no extra cultivation; the hills were 3 feet apart.

Large Cheese.—On the 14th inst., Mr. Thos. Meacham, of Otsego county, presented to the citizens of Rochester, a cheese made at his dairy, which weighed 700 pounds. The meeting at which it was presented, was held in the arcade gallery in that city. Mr. Meacham made a speech on presenting it, to which the Mayor of the city replied. Mr. M. has some other large cheeses made; one weighing 1400 is intended for President Jackson, one of 750 lbs., for Vice President Van Buren, and another of the same weight for Governor Marcy. Mr. M. makes from 50,000 to 60,000 pounds of cheese per year.

SILK MANUFACTORY.

We believe that few of our readers are aware of the extent to which the manufacture of articles from the cocoon is carried in New England. We take from the Providence (R. I.) Journal the subjoined account of an establishment in that city.

"The Rhode Island Silk Company, which was late the "Valentine Silk Company," was incorporated at the recent session of our Legislature, with a capital of \$100,000. Their Factory is situated upon Eddy street, the next building to the old Glass House. The machinery, with which it is nearly filled, is propelled by a six horse power steam engine. The steam is generated with the siftings of anthracite coal, at an expense of 93 cents per day. This, till recently, useless and refuse portion of the coal is ignited and rendered about as valuable as any other, by the aid of Reynolds' patent blowing apparatus. While preparing their machinery and instructing their operatives in the art, they have manufactured from 16 to 1800 yards of rich, heavy goods. The number of hands has recently been very much increased, and, with the additional power looms about to be put in, the company contemplate making from 300 to 400 yards of goods per week.—Of course, as there is no domestic supply, they are compelled to manufacture foreign silk. Another year, however, they will probably derive a considerable amount of their raw material from

their own plantation. This plantation is on the western border of the city, and consists of thirty acres of land particularly well adapted to the growth of the mulberry tree, and is already in a high state of cultivation. Upon it there is a large well finished two story house, and a barn and granary—a cocoonery 150 feet long, built last spring, and about 16,000 mulberry trees of very vigorous growth, most of which are five years old, and the remainder four. From these trees it is estimated that an average amount of at least 2000 pounds of wound silk may be produced per year, for the next five years, or two ounces to a tree—and for the succeeding five years double the amount. This is a moderate estimate compared with the one made by the Boston Company, and, indeed, compared with the results of experience, of those who have been engaged in growing silk in Connecticut for many years. The company are about putting out 40,000 more trees of three years' growth, in hedges after the Italian mode. These, it is estimated, will yield an average rate of one ounce of wound silk to a tree per year for the next 5 years, or 2500 pound per year. The total product of the farm in silk, according to this estimate, would be worth, at \$4 per pound, \$18,000. One half of this amount is allowed for attendance upon the cocoonery and winding the silk into a marketable state, * leaving a net profit of \$9,000. In addition to this ought to be reckoned the value of the crops of corn and potatoes which the best condition of the trees will require should be planted among them. With a liberal application of fish, which abound, as a manure within less than a mile of the farm, it may, beyond doubt, be rendered much more productive

* This estimate is entirely too high—in a large establishment, less than twenty-five per cent. should cover all expenses.

than in the above calculations, is anticipated, and by planting in hedge rows 100,000 more trees which it is competent to sustain, it would of course yield a manifold increase of silk. On one side of the farm is a beautiful pond from which the trees may be watered, by the aid of a forcing pump, in any period of drought.

ON SUCKERING INDIAN CORN.

The following extracts are from the pen of a practical farmer. We do not think the usefulness of an agricultural paper depends more on communicating new discoveries than of reminding farmers of what they already know; and on calling up ideas that will sharpen the faculties of observation and reflection. The extracts will illustrate our meaning:

"It was the former practice in this neighbourhood carefully to pull all suckers from Indian corn. This operation is now entirely abandoned; nature is left to do her own business in her own way; and farmers have the pleasure of gathering some more bushels of corn than they otherwise would, besides saving all the labor of doing worse than nothing. Providence always acts wisely; and why should we by our cunning cheat ourselves? I hope that my countrymen generally, will soon be rational enough, and exhibit common sense enough, to abstain from docking horses, sucking corn, &c.

"It is deemed best: where corn is intended to

be cut up, to let the crop stand till it is nearly mature, remembering however that the work should be done in time to escape the frost. The fodder is considered better, and the grain is absolutely so.—*Gen. Farm.*

TURNIPS.

As the turnip harvest has arrived, we take the liberty of suggesting to those who cultivate the Swedes, the method for putting them for winter. The pits are limited to two feet in width and of an indefinite length, and are dug in a dry situation, seldom more than two feet deep. When the pit or hole is filled with roots as high as the surface of the ground, the turnips are laid by hand, the tops out, and sloping the centre, until they terminate in a ridge which is generally about two feet above the ground. The whole are then covered with straw and then with earth. The important point follows: The crown of the ridge is then pierced with an iron bar, at intervals of a yard, and the earth pressed out so as to leave an entire aperture into the turnips, into each of these apertures, a wisp of twisted straw is loosely inserted. The roots will heat, and unless rarified air is permitted to escape the turnips are apt to rot. The openings permit its escape, without danger of the frost doing injury. With this precaution we have not lost one bushel in a thousand. The same course would no doubt be beneficial in preserving the mangel wurtzel.—ib.

ON THE USE OF LIME AS A MANURE.

By M. PUVIS.

Translated for the Farmers' Register from the *Annales de l'Agriculture Francaise*, of 1835.

CONTINUED.

Various qualities of lime.

It is necessary for the farmer to know the nature of the lime which he uses. It may be pure, or mixed with silex, argil, or magnesia. *Pure lime* is the most economical, the most active, that which can produce the most effect in the least quantity.

Silicious limestone is used in greater quantity. The lime from it receives, as does the foregoing, the name of *hot lime*, and there is little difference in the application, except that more of the latter is wanting.

The *argillaceous lime* is the same as the *hydraulic lime* or the *poor lime* of builders. It appears that the first two kinds are more favorable to forming grain, while the latter favors more the growth of straw, grasses, and leguminous crops. It is better for the improvement of the soil, but a heavier dose of it is required.

Magnesia lime acts very powerfully, but exhausts the soil if given in a large dose, or if it is not followed by alimentary manure in abundance. It has exhausted some districts in England, and entire provinces of America,* and it is to this kind

* The author has been deceived by exaggerated accounts of injury from liming in America. It is probable that wherever it occurred, it was caused by the usual ignorance of the action of lime: from erroneously considering it as an alimentary, and directly fertilizing manure, and after applying it, wearing out the soil by continued grain crops. Such effects are spoken of by Bordley.—ED.

that seem due most of the complaints made against lime.

By chemical processes the farmer may make himself sure of the nature of the lime which he uses.

Pure lime is commonly white, and is dissolved without any thing being left, in nitric or muriatic acid.

Silicious lime is often gray, and leaves a sandy residue [after solution,] which is rough to the touch.

Argillaceous lime is obtained from stones which have a clayey odor and appearance: it is commonly yellow—and leaves, after the solution, a residue which is mostly an impalpable powder, [*et qui prend en masse*,] which may be formed into a mass when wet.

Magnesian lime is made from stone commonly colored brown or pale yellow; it forms a white cloud in nitric acid, diluted with water, and used in less quantity than enough for saturation.

Of second limings.

23. When the limed field returns to the state in which it was before the operation, when the same weeds re-appear, and the crops lower in product, it is time to renew the application of lime. It may be conceived that the time of the second liming depends on the amount given in the first. When the dressing has been light, it is necessary, as is done by the Flemings and the Manceaux, to recommence entirely, or to the extent of the first dressing, when it has been heavy, the next may be diminished by one half. Besides, in this matter we should take counsel of the state of the soil, and of experience, because there are some lands which demand, and can use heavier doses of lime than others.

Quantities applied.

24. The quantities of first as of second dressings of lime, vary with the consistence of soils: they ought to be small on light and sandy soils—and may, without ill consequence, be heavy on clay soils.

The dose ought to vary according as the soil is more or less pervious to water, or as drained well or ill by its texture. Small applications to soils from which the superfluous water does not pass easily, are but little felt; but if the dressing is heavy, and the ploughing deep, the lime aids the draining, and adds to the healthy state of the soil. It may be conceived that the quantity of lime ought also to be increased with the annual quantity of rain that falls—because in proportion to that quantity ought the openness of the soil, and its fitness for draining, to be extended.

Nevertheless, the practice of the departments of the North, and of La Sarthe, seem to indicate the average dressing which suits in general for land: thus the liming of the North, which every ten or twelve years gives to the soil 40 hectolitres of lime to the hectare, or a little more than three hectolitres a year, agree with that of La Sarthe, which gives eight or ten hectolitres every three years. The first plan gives at one dressing what the other distributes in four: as both make a like average, it may be thence inferred that the earth demands annually three hectolitres of lime to the hectare, [$3\frac{1}{2}$ bushels to the acre,] to sustain its fecundity. But as neither the soil nor the plants consume all this quantity of lime, it is to

be believed, that at the end of a greater or less length of time, the soil will have received enough to have no more need of it for a certain space of time.

Manner of treating limed lands.

25. After having by liming, given the soil a great productive power, having put it in condition to produce the most valuable crops, which are often also the most exhausting, it is necessary to husband these resources—to give manure in return for the products obtained—to employ as litter, and not as food, the straw, now increased by one-half—to raise grass crops from the soil now fitted to bear them with advantage—in short, to modify the general plan, and the detail of the culture according to the new powers of the soil, the prices of commodities, and to local conveniences.

However, it is not necessary to hurry the change of the rotation. Such an operation is long, difficult, very expensive, and ought not to be executed but with much deliberation.

Effects of lime on the soil.

26. The effects of lime, although similar to, are not identical with those produced by marl; and the qualities of soils limed, differ in some points from those of natural calcareous soils. The grain from limed land is rounder, firmer, gives less grain, and more flour, than that from marled land: the grain of marled land is more grey, gives more bran, and resembles that made upon clover, though it may be preferable to the latter. The grain of a limed soil is more like that from land improved with drawn ashes. Limed land is less exposed to danger from drought than marled land, on soils naturally calcareous. The crop is not subject to be lodged at flowering time, when the sowing was done in dry earth.

27. In limed earth, weeds and insects disappear. The earth, if too light, acquires stiffness, and is lightened if too clayey. The surface of the argilo-silicious soil, before close and whitish, is made friable, and becomes reddish, as if rotten: it hardens and splits with drought, and is dissolved by the rains which succeed. This spontaneous loosening of the soil facilitates greatly the labor of the cultivator, the movement of the roots of the growing plants, and the reciprocal action of the atmosphere upon the soil, which remains open to its influence.

All these new properties which the limed soil has acquired, doubtless explain in part the fertilizing means which calcareous agents bring to the soil: but we think it is still necessary to seek some of these causes elsewhere.

28. Lime, according to the recent discoveries of German chemists, seizes in the soil the soluble humus or humic acid, takes it from all other bases, and forms a compound but slightly soluble, which appears, under this form, eminently suitable to the wants of plants. But as this compound is not soluble in less than 2000 times its weight of water, while without the lime, the humus is soluble in a volume of water, less by one half, it would follow that, in consequence of lime, the consumption of this substance, and the productive power of the soil would, in like proportion, be better preserved. Since the products of the soil increase much from the liming, while the humus is economized, since these products borrow very

little from the soil, which remains more fertile while thus yielding greater products, it follows that the principal action of the lime consists, at first, in augmenting in the soil, and in the plants, the means of drawing from the atmosphere the vegetable principles which they find there, and next, in aiding, according to the need, the formation, in the soil or the plants, the substances which enter into the composition of plants, and which are not met with ready formed either in the atmosphere or in the soil.

The researches upon these various points are curious, important, interesting to practice as well as to science—and will lead us to explain, by means not yet appreciated, the action of lime upon vegetation.

Absorption by plants of the principles of the atmosphere, in the vegetation on uncultivated soils.

29. Saussure has concluded, from his experiments, that plants derive from the soil about one-twentieth of their substance; and the experiments of Van Helmont and of Boyle have proved that considerable vegetable products diminish very little the mass of the soil. But this fact is still better proved by the observation of what passes in uncultivated soils.

Woodland that is cut over in regular succession [stalls] produces almost indefinitely, without being exhausted, and even becoming richer, the mass of vegetable products which man gathers and removes, and of which the soil does not contain the principles. If, instead of woodland thus partially and successively cut over, we consider upon the same soil a succession of forests, and, for greater ease of estimation, resinous forests, we find, for the products of the generation of an age, forty to fifty thousand cubic feet to the hectare.

This product is less than that of the resinous forests of many parts of the country, and yet it is nearly equal in bulk to half of the layer of the productive soil itself: it represents an annual increase of 24,000 weight of wood to the hectare—and which is produced not only without impoverishing, but even while enriching the soil, by an enormous quantity of the droppings and remains of all kinds.

These products which do not come from the soil, are then drawn from the atmosphere, in which plants gather them by means of particular organs designed for that use. These organs are the myriads of leaves which large vegetables bear—*aerial roots*, which gather these principles either ready formed in the air, or which take up there the elements, to combine them by means of vegetable power. But these aerial roots exert quite a different and superior energy in gathering the constituent principles of plants in the atmosphere, to that of the roots in the ground—since the former furnish nearly the whole amount of the vegetable mass, while the latter draw but very little from the soil.

30. Plants may well find in the atmosphere the greater part of the *volatile* principles which compose them—the carbon, hydrogen, oxygen, and azote. But it is not so easily seen whence they obtain the *fixed* principles of which their ashes are composed. These products could not exist ready formed in the soil—for the saline principles contained in the ashes of a generation of great trees, which would amount to more than 25,000

weight to the hectare, would have rendered the soil absolutely barren, since, according to the experiments of M. Lecoq of Clermont, the twentieth part of this quantity is enough to make a soil sterile. We would find a similar result in accumulating the successive products of an acre of good meadow. It is then completely proved that the saline principles of plants do not exist ready formed in the soil. They are no more formed in the atmosphere, or the analysis of chemists would have found them there. However, as the intimate composition of these substances is not yet perfectly known, their elements may exist in the atmosphere, or even in the soil, among the substances which compose them.

Neither can it be said that these salts may be derived from the atomic dust which floats in the air; for this dust is composed of fragments organic and inorganic, carried especially to the plant themselves, and then, in estimating this atomic matter at the most, we will scarcely find in it the hundredth part of the saline substances contained in the vegetable mass produced. We ought then to conclude that the saline substances of plants are formed by the powers of vegetation, or of the soil.

31. In like manner as with the saline principles, the lime and the phosphates of ashes ought to be due to the same forces, whether that the roots take up their unperceived elements in the soil, or that the leaves gather them in the atmosphere. This consequence results evidently from this fact—that plants grown in soils, of which the analysis shows neither lime nor phosphate, contain them notwithstanding in large proportion in their fixed principles—of which [or of the ashes] they often compose half the mass.*

Absorption of plants, in vegetation on cultivated soils.

32. Vegetation on uncultivated soils operates under conditions altogether different from those of the cultivated, so that the results receive modifications which it is important to examine.

Nature produces, and continues to produce, all the vegetable mass in spontaneous growth, without any other condition than the alteration and succession of the species. In vegetation on cultivated land, by bringing together the same individual plants which are to grow abundantly on a soil and in a climate which, in most cases, are not those which nature had designed, there are required, besides the general condition of alteration of the species, frequent tillage of the soil, and means to repair its losses, that the culture may be productive, and be continued. However, with these new conditions, the force of absorption of plants on the atmosphere still furnishes the greater part of the vegetable principles in soils not limed—and still more in limed soils.

To form a precise idea, we will take it in the land of the writer, its culture and its biennial rotation. As the same qualities of soil are found elsewhere, as no particular circumstance increases or impairs its products, there would be found similar results, for the same qualities of soil, with

* This fact is explained very differently by the *Essay on Calcareous Manures* (Ch. VII.) where it is used to sustain the doctrine of *neutral soils*.

a different culture. The inferences which we will draw from ours, will apply them to all others.

On our soil of the third class, [or worst quality] fallow returns every two years, with a biennial manuring of 120 quintals to the hectare. This mass contains more than four-fifths of water, which should not be counted as manure, and consequently, the substance which serves for the reparation of the soil is reduced to 24 quintals. We reap, in rye, straw, and buckwheat, after the year of fallow, a dry weight of 40 to 50 quintals on an average. If it is supposed that all the manure is consumed, or employed in forming vegetable substance, still the soil would have furnished 18 to 20 quintals more than it received, and which excess would be due to the power of absorption, whether of the soil or of the plants, on the atmosphere.

On lands of middle quality, which yield a crop every year, with a double manuring, that is to say, of 48 quintals of dry manure, in two years there is a product in wheat, maize, or potatoes, which amounts to from 12 to 15,000 weight, 120 to 150 quintals, of which two-thirds, or 80 quintals at least are derived from absorption.

On soils of good quality, with a manuring of one-third more than the last, which is equal to 64 quintals of the dry substance to the hectare, there are obtained of dry products, in grain, straw, roots, or hay, double of the last, or nearly so, of which three-fourths, or 180 quintals are due to the power of absorption.

Lastly—upon the most fertile soils, (*sols d'exception*), where manures are useless, the product, often double, or at least half as much more than the last mentioned, will amount to 360 quintals to the hectare in two years. This product would be, as in spontaneous vegetation, entirely due to absorption.

We would have then, to represent the products of two years in quintals, in the four classes of soil under consideration, the progressive amounts of 42,130, 240,360: or by deducting from these products the weight of the manure, we would have, to represent the power of absorption, the progression 18, 92, 176, 360 quintals. From this is deduced, as the first conclusion, that, supposing the plants have consumed and annihilated all the substance of the manure given, (which is beyond the truth,) plants receive a much greater part of their substance from the atmosphere, than from the soil; and that this power of drawing food from the atmosphere increases with the goodness of quality in soils.

33. The proportion of fixed substances, or ashes, in agricultural products, is 45 pounds to the 1000, and consequently, in our four classes of land, the quantity amounts to 180, 559, 1032, 1548 pounds. But the soluble saline substances form at least half of these ashes: they are then produced in the two years of the rotation, in the quantities of 90, 279, 516, 774 pounds. But, according to Kirwan, barn yard manure yields 2 per cent. of soluble salts: then the manure given to these soils contained 48, 96, lbs. 128 of saline substances, which being deducted from the preceding quantities, leave the four classes of soils stated, 42,183,388,774 lbs. of products in soluble salts, in two years of the rotation, gained solely

by the absorbing forces of the soil and of plants.*

34. But, in the same soils, with the same manures, and the same tillage, by the addition to the thickness of the ploughed layer of only one thousandth part of lime, the products, whether volatile or fixed, are increased in a striking manner: the soil of the first named (or lowest) quality reaches the product of the second—the second rises one-half or more—and that of the best (of the manured soils) increases a fourth. Thus, our scale of product becomes 180,200,000 quintals—and deducting the manure, 106,152,236 quintals, for the two years of the rotation. The most fertile soil (*sol d'exception*) cannot receive lime beneficially because it contains it already; these lands all belong to alluvions, where the calcareous principle has always been found in greater or less proportion.

35. The product of fixed principles [as ashes] in the three classes of limed soils, would be 568,868,1290 pounds, and in soluble salts, 278,480,645 pounds; and deducting the soluble salts of the manure, the quantities would be 230,334,525. A light addition of lime has then doubled the force of absorption, and almost tripled the quantity of saline principles produced. One of the most remarkable effects of lime consists then, in making a soil produce a much greater proportion of saline principles: and if the experiments of M. Lecoq upon the efficacy of saline substances on vegetation are to be admitted, it would be in part the phenomenon of their production that lime would owe its fertilizing effect.

36. It results from what precedes, that salts are formed in the soil, or in vegetables: thus we see every day the nitrates of potash and of lime form under our eyes in the soil, or elsewhere, without any thing indicating to us the origin of the potash which is contained. But potash itself, again forms spontaneously in drawn ashes, according to the observations of the chemist Gelhen. We see salts also renewed in the artificial nitre beds, with the aid of moisture and exposure to the air. But it is the presence of the lime that determines this formation more particularly. The nitrates abound in the ruins of demolished edifices; they are formed in the walls and in all parts of houses situated in damp places; they effloresce on the buildings of chalk in Champagne; they are produced spontaneously in the ploughed lands of the kingdom of Murcia. This effect, which we see that the calcareous principle produces every where, we think it produces in all the soils to which it is given, and where meet the circumstances which favor the formation of nitrates, viz: humidity, vegetable mould, and exposure to the air. But, according to the experiments of M. Lecoq, and others, and the opinion which is established of the old agriculturists, the nitrates are the most fertilizing salts. It would be then to their formation, which it pro-

motes in the soil, that lime owes, in part, its effect on vegetation.

37. The foregoing proofs of the daily formation in the soil, and by vegetable life, of saline and earthy compounds, taken in nature and on a great scale, are doubtless sufficient: but they may still be supported by the experiment and opinions of able men who have adopted the same system.

And first—in the experiment of Van Helmont, in five years, a willow of five pounds grew to weigh 169, and had caused a loss of only two

ounces to the soil which bore it. But the 154 pounds which the willow had taken contained five pounds of ashes, which are due entirely to absorption, since the leaves and the other droppings of five years, which were not saved, would have given at least one pound of ashes, which makes up for, besides, all that which, in spite of the sheet of lead which covered the top of the vessel in which the willow grew, it might have received in the waterings, and from other fortuitous circumstances. Boyle has repeated and confirmed this experiment in all its parts.

| NAMES OF PLANTS. | Constituents of 100 parts of ashes. | | | | | | Loss. | | |
|---|-------------------------------------|----------------|--------------------|--------------------|---------|------------------|-------|-------|-------|
| | Ashes from 100 parts dry. | Soluble Salts. | Earthy phosphates. | Earthy Carbonates. | Silica. | Metallic Oxides. | | | |
| Wheat in flour, | - | - | 43,95 | 12,75 | 0,25 | 32 | 0,5 | 12,25 | |
| Do. seeds ripe, | - | - | 11 | 15 | 0,25 | 54 | 1 | 18,75 | |
| Do. seeds ripe, | - | - | 53 | 10 | 11,75 | 0,25 | 51 | 0,75 | 23 |
| Straw of wheat, | - | - | 43 | 22,5 | 8,2 | 1 | 61,5 | 1 | 78 |
| Seeds of do. | - | - | 19 | 47,16 | 44,5 | — | 0,5 | 0,25 | 7,5 |
| Bran, | - | - | 52 | 4,16 | 46,5 | — | 0,5 | 0,25 | 8,5 |
| Plants of maize (Indian corn) a month before flowering, | - | - | 122 | 69 | 5,75 | 0,25 | 7,5 | 0,25 | 17,25 |
| Do. in flower, | - | - | 81 | 69 | 6 | 0,25 | 7,5 | 0,25 | 17 |
| Do. seeds ripe, | - | - | 46 | — | — | — | — | — | — |
| Stalks of do. | - | - | 84 | 72,45 | 5 | 1 | 18 | 0,5 | 3,5 |
| Spikes (tassels) of do. | - | - | 16 | — | — | — | — | — | — |
| Seeds of do. | - | - | 10 | 62 | 36 | — | 1 | 0,12 | 0,8 |
| Oats, (entire plant,) - | - | - | 31 | 1 | 24 | — | 60 | 0,25 | 14,75 |

The proportion of soluble salts, 2 per cent. found by Kirwan in barn yard manure, however correctly ascertained in a particular case, can no more be relied on as a fixed and uniform proportion, or even a true general average, as used by M. PURVIS in the estimates above. ED. FARM. REG.

Lampadius, in different isolated compartments, filled with alumine, others with silex, others with [carbonate of] lime, all pure, has made to grow plants, of which the burning has yielded to analysis like results, and which, consequently, contained earths which were not in the soils which bore them.

Saussure, in establishing that plants do not take in the soil more than a twentieth of their substance, in extract of mould and in carbonic acid, has necessarily established, by the same means, that almost the whole amount of fixed principles do not proceed from the soil.

Braconnot has analyzed lichens, which contained more than half their weight of oxalate of lime—and he has observed others covered with crusts of carbonate of lime, when there was none of this earth in the neighborhood.

Shrader, in burning plants grown in substances which did not contain any earthy principle, has found in their ashes, earth and salts which were neither in the seeds sown, nor in the pulverized matters in which the plants grew.

Lastly—the analysis of Saussure, though showing more of the carbonate of lime in the ashes of plants which grew on calcareous soils, than on soils not calcareous, yet nevertheless, they have formed more than a sixth of the ashes from ve-

getables on silicious soil—and Einhoff has found 65 per cent. of lime in the ashes of pines grown on silicious soil.* The labors of science then confirm what we have above established, that plants, or the soil, form salts and earths.†

* It is presumed, from the context, that these silicious soils, were not the least calcareous. ED. FARM. REG.

† Van Helmont's experiment, cited first in the list above, like M. Purvis' reasoning in general, furnishes ample proof that most of the volatile parts of vegetables, and the greater part of their bulk, are drawn from the atmosphere—and they are equally defective in proving that earths and other fixed principles are thence derived, or are formed by the power of vegetable life. Distilled water is not entirely free from earthy matter, and if it had been used for watering the willow, it would in five years have given some considerable part of the five pounds of solid matter in the ashes. But as we are not told that it was either distilled or rain water, it may be inferred that the comparatively impure water of a fountain or stream, was used for watering the plant, and which would more than suffice in so long a time, to convey the whole increase of earthy and saline matter. The experiments of Lampadius and Shrader

* The proportions of ashes of different plants, and of their saline matter, vary greatly—and the uniform proportions assumed above, are far from correct, even as averages of unequal proportions. This will sufficiently appear from the following examples extracted from Saussure's table of the products of various vegetable substances. (See Davy's Agr. Chem. Les. III.)

are liable to the same objection—and the former to this in addition—that his earths were deemed absolutely pure, when, in all probability, they were not so—and that a very slight admixture of other kinds with each, would furnish the minute quantity that a small plant could take up during its short and feeble existence under the circumstances stated. The results stated of the experiments of Bracconot, Saussure and Einhoff, may be, and probably are, entirely correct—but they are fully explained by the doctrine of *neutral soils*, and need no support from, and give none to our author's doctrine of the formation of lime by vegetable power.

But though deeming Mr. Puvis altogether wrong in this, his main and most labored position, and that the proofs cited above, as well as some others in the preceding section, are of no worth, still these pages which present his theory, contains what is of more value. He places in a strong point of view the important truth that the atmosphere is the great treasury of manure, from which nature doubles and triples the amount of all the small portions given to the earth by the industry of man. The author's scale of actual products from different grades of soil is also interesting. It sustains the position assumed in the *Essay on Calcareous Manures*, that the worst soils are limed (or made calcareous) to most profit—and that alimentary manures, when needed, are most productive on the best soils.—ED. FAR. REG.

(To be concluded in our next)

SHEEP HUSBANDRY.

Communicated by the Rev. Henry Colman to the New York Farmer and American Gardener.

In my communication to the last No. of the New York Farmer, I referred to an account of a sheep establishment, politely furnished me by a very intelligent and experimental shepherd, Leonard Jarvis, Esq., of Clermont, N. H., as accidentally mislaid. It has since come to hand, and I have the pleasure of presenting it to my agricultural friends, to whom it will be interesting.

Clermont, N. H. August 23, 1835.

REV. H. COLMAN—Dear Sir:—My avocations have been so pressing that until this moment I have not been able to communicate, as you requested me, some remarks upon my sheep and their treatment. Though I have been a shepherd 30 years, with a flock seldom ever less than 1000, more frequently 2000, I am still somewhat undecided what description of wool can be grown most profitably, and whether carefully breeding in and in, or judiciously crossing, produces the greatest improvement.

I commenced growing fine wool with a considerable number of the imported Paular and Escorial, then considered as the best stock in Spain, which flock I have kept to this day pure and unmixed, and at the same time, by crossing two flocks, have a third flock, combining generally the properties of both flocks, but occasionally showing the characteristics of one of them. At the introduction of the Saxons, I procured some valuable bucks, and by crossing them with pure Merinos, acquired a fourth flock, and consequently have had, for the last ten years, four distinct flocks, viz. Paular, Escorial, Paular and Escorial mixed, and Saxon united with Merino. These four flocks have acquired great perfection by my unremitting attention to the selection of breeders, the Merino at this time carrying a much finer

fleece than in 1810, as is apparent by contrasting the present clips with wool shorn in that year. There is very little difference in the fineness of my Saxon and Escorial fleeces; these last are somewhat heavier, with a staple more elastic. The Escorial has a greater resemblance than any other Merinos, both in form and fleece, to the Saxons that I have seen, and is probably the Spanish flock from which the most approved Saxons originated. The Paulars are more compact in form, have heavier fleeces, and are constitutionally the most hardy of all the Merino race. I omitted to say that I had also, when I began to grow fine wool, three other pure Merino flocks, viz. the Nigretta, Equirro, and Montarco; but after a few years experience, I gave a decided preference to the Paular and Escorial, and discarded the others. You have now a concise description of my kinds of sheep; and I will say a word or two as to their general management.

I usually commence with dry fodder by the middle of November, and discontinue by the 5th of May; generally, however, for the first and last fifteen days, giving no hay, unless the ground should be covered, but feeding about half a gill of Indian corn to the sheep twice a day. As far as my experience extends, a ton of good hay will suffice for ten sheep, with the above quantity of grain. They are fed from racks in the yard, and have sheds to retire to at will. I have fed under cover, but believe that it tends to diminish the appetite, and injure the constitution. They are kept in separate yards, in number from 50 to 100, taking care to keep those of about the same degree of strength by themselves; and have running water, though, when the ground is covered with snow, I think they do well without it. I allow about four bushels of salt to the 100 sheep, the greater part of which is consumed when the sheep are at grass. My bucks run with the ewes from the 1st to the 10th of December, allowing three to the 100. The number of lambs reared depends much upon the season; 60 lambs from the 100 ewes may be the average from flocks in quality like mine; from coarser flocks the return is greater. The ewes are not permitted to receive the buck till after they are two years old, and I prefer bucks from two years old to four.

These few facts will probably afford you little or no information; but in compliance with your request I communicate them, and should be gratified on receiving some account of your own management. I am, dear Sir,

Very respectfully,

LEONARD JARVIS.

To this obliging communication, I take the liberty to subjoin a particular account of the above gentleman's flock from his printed advertising card.

"I have four distinct flocks of different properties, but of equal value in the market.

1. Saxon mixed with Merino: fleeces extremely soft and fine, averaging about $2\frac{1}{2}$ pounds, staple generally very short; these are not so hardy as full blooded Merino, and consequently increase more slowly.

2. Unmixed Merino of the Escorial or Royal Spanish stock: these are very little inferior in fineness to the Saxon; staple is somewhat longer, and more elastic, fleeces rather heavier; these

are more hardy and productive than the Saxon Merinos.

3. Unmixed Merino of Paular stock; these have still heavier fleeces, not so fine or soft as the Escorial; they are compact in form; constitutionally most hardy of the Merinos, and by far the most prolific.

4. Grand full blood Merinos: stock the result of previous intercourse of Escorial and Paular bucks and ewes, and consequently uniting their qualities of form and fleece, but occasionally exhibiting the peculiar characteristics of the Paular and Escorial only.

(Signed)

LEONARD JARVIS."

WHEAT FLY.

The New York Farmer and American Gardener publishes the following article from the Rev. Henry Colman, which will be read with interest by all our grain-growing agriculturists. The discovery is as important in a national point of view as it will prove so to individuals engaged in the culture of small grain.

If the remedy be effectual, and we do not pretend to question it, the application of the lime, besides destroying the insect, will prove eminently serviceable in urging the plant forward to maturity.

"The grain fly or insect, which, for a few years past has been destructive to wheat in many parts of the country, has this year extended its ravages, and excited, wherever he made his appearance, very serious alarm. An eminent farmer in the State of New York wrote to me a year since that he must give up the cultivation of wheat, as his crops were so much injured that he hardly obtained a return equal to the seed sown. I knew another instance in the same State where, though the straw was large and the appearance promising, yet from thirty bushels sown not more than seven were obtained.

I have known other cases in which the whole field has been mowed and sold for litter; and in a recent excursion up the valley of the Connecticut, I have heard complaints every where, and hundreds of acres so destroyed that the grain they would yield would hardly pay for reaping. Besides this, the same insect has destroyed many fields of rye in the same manner as the wheat, and had been found this year in the oats; the progress of the insect has been about forty miles a year; and a distinguished gentleman in Vermont, a practical and extensive farmer, remarked that he feared they would on this account be obliged to relinquish the cultivation of small grains.

The habit of the insects have not been accurately observed. I myself have not yet seen the fly, but have seen the worms in the kernel after the grain has been destroyed. He is represented as being a small reddish fly, which is seen hovering over the wheat fields in immense numbers, while just in flower, and has been observed to alight upon the kernel or bud, to ascend it, and then descending to the inner side, to deposit his egg between the stalk and the kernel. I purposely avoid the use of all scientific terms,

wishing to be understood by common farmers. From this egg the worm is generated, which entirely consumes the grain while in the milk leaving nothing but the husk, in which are found several small yellow worms, about an eighth of an inch in length. As the work of destruction is now completed, any farther observation of its habits are of no importance, unless we can some way reach so as to destroy the germ of the insect. No preparation of the seed or ground has yet been found effectual to this end.

The continuance of the fly upon the grain is thought not to exceed three or four days, and they are seen in great numbers just at night. Some farmers have found late sowing a partial security, as the season for the flies has passed away before the wheat was in condition for their attack. Spring wheat sown as late as the 7th and 8th of June has been untouched, though in case of such very late sowing, the farmer will be very fortunate if, in attempting to escape the fly, he does not get nipt by the frost.

I have now, however, the extraordinary happiness of announcing to the agricultural public, what there is reason to believe will prove an effectual, as it is a reasonable and feasible preventive. Should it prove effectual, the remedy will be worth millions and millions of dollars to the country. It was communicated to me on a late tour of agricultural inquiry and observation, by Dr. Eliquint Lyman, of Lancaster, N. H. an intelligent and enlightened and practical farmer, whose crop of wheat usually averages from twenty five to thirty bushels per acre. It consists in the application of fine slacked lime to the wheat just at the time of its heading out and flowering, at the rate of about a peck to the acre.

It is sown broadcast upon the wheat while the dew is on it, and the field is rendered white with it—the best mode of applying it is with the hand, and for the person who sows it, taking his proper breadth or cast to walk backwards, so that he may not cover himself with the lime. It must be sown while the wheat is wet or the dew is on, and the philosophy of its application is very simple. The maggot of the fly is deposited between the grain and the stalk. It is, of course, an animal substance.—The lime, or alkali mixing with the dew is carried down upon it, and neutralizes and destroys it. Dr. Lyman has now tried this preventive three successive years, and has invariably, as he assures me, saved his crops, while those of his neighbors have been destroyed.

I visited at the same time, the field of a Mr. Bellows, in the same town, who had been advised by Dr. Lyman to make this application. The field consisted of several acres. He did it, it has proved successful, and what is strongly confirmatory of the value of this remedy, is the fact that a field of rye, belonging to Mr. Bellows, adjoining his wheat, and I think within the same enclosure, which was not limed, had been nearly destroyed by the fly.

They are certainly very important experiments, and I made no delay in presenting them to the public. Dr. Lyman has promised me a more particular account of the experiment and result, and likewise Mr. Billows, which, as soon as received, I shall be happy to communicate. I have received, indirect and indefinite communication, that

the same experiment has been successfully made in Gilman, N. H. but I have not yet been able to obtain either the name or details.

HENRY COLMAN.

Meadowbank, Sept. 15th, 1835.

MARYLAND HORTICULTURAL SOCIETY.

SATURDAY, Nov. 7, 1835.

The following articles were exhibited, viz: By Mr. Lewis Denning, of Chambersburg, Pa., a very large Beet, weighing 13 lbs. and resembling in form *turtle*.

By Col. Wm. McClellan, Gettysburg, Pa., a very large Turnip and a large Beet.

By Mr. Thos. Kehoe, 7 stalks of Celery.

By Mr. James Stranoch, 2 very fine Cape Broccoli.

By Wm. G. Tilghman, of Talbot county, nine stalks of Corn, from four to six ears each. [It is the variety called twin corn, and has been improved in the number of ears on a stalk by selecting the seed every year from stalks having the greatest number of perfect ears. The ears are small, but very perfect. But the question whether the number of ears be not at the expense of their size; or rather, whether an acre of this kind of corn will produce more shelled corn than an acre of the common two eared kind, is the one most interesting to the public, and which we should be glad to see answered.]

By Mrs. Forney, 33 varieties of Chrysanthemums.

By Mrs. John Lester, a fine bouquet of do.

By Mr. Geo. H. Keerl, 51 varieties of do.

By Mr. Samuel Fenst. *Hybiscus Africana*, *H. Sinensis Striata*, *Cosmea bipinnata*, *Nerembergia*, *Mimulus Smithii*, *Verbena Melandrii*, *Melastoma Malabitheca*, *Sprigelia Marylandica*, *Vinca vulgaris*, *Arbutus unedo*, *Campanula rapunculoides*, *Auricula*, *Rosa mutabilis*, *Salvia cerulea*, *Angustifolia*, *Splendens* and *Camillia alba plena*. Mr. Fenst also exhibited to the Secretary a new rose, which he calls the "Queen of Roses." It is a most beautiful addition to our already extensive list of roses. The petals are white, with a fourth to a half an inch of the outer edges bordered with deep pink. It is very double, the petals regularly arranged, incurved and open, shewing the beautiful white ground of the petals between the pink edges, somewhat like the *Queen of Dahlias* that has been so much admired the past season. It is supposed to be a cross between the tea and china rose.

At 12 o'clock the premium was awarded to James Stranoch, for his fine Cape Broccoli.

SATURDAY, Nov. 14.

The following articles were exhibited:

By Mr. Washington Hosford, of Baltimore co. two Turnips, weighing 11 lbs. 2 oz.

By Mr. Henry Troup, two roots of Mangold Wurzel, weighing 16 lbs. each, and measuring 28 inches in length and 21½ inches in circumference. [These were the finest roots we have seen this year. They were regularly shaped, and perfectly solid.]

By Mr. John Ridgely, of Hampton, ½ bushel of very fine Potatoes.

By Mr. Peter Coombs, 3 varieties of Corn, one doz. pomme d'api Apples and 6 very fine Pears.

GIDEON B. SMITH, Cor. Sec'y.

DOMESTIC SUMMARY.

Such is the happy influence of good roads, railroads and canals upon the value of property, that in every direction where they are made an appreciation is imparted that would seem to defy all the rules of sober calculation. As one among the hundreds of daily occurring examples we would name the following. Mr. David Shriver has recently sold 400 acres owned by him at the western termination of the Chesapeake and Ohio canal for \$180,000. Ten years ago this farm would not have brought ten thousand dollars. It has been sold to a company of gentlemen, who are now laying it off into streets, with a view of creating it into a town.

A large and respectable meeting of citizens of Belmont county, Ohio, was recently held at the Court house in St. Clairsville, at which resolutions were adopted approving of the plan of extending the Baltimore and Ohio Railroad, from Cumberland to Brownsville, and from thence to Wheeling and Pittsburgh, declaring it an object of great national importance, and, requesting the representative in Congress from that district, to use his exertions to obtain an appropriation from the national government to ensure the successful extension of the road. Meetings of the citizens of different portions of Pennsylvania, Ohio, and Maryland have been held, at which delegates were appointed to meet a convention to be held at Brownsville, Pennsylvania, on the 25th inst. to devise measures for carrying this object into effect. At a meeting of the citizens of Baltimore held on the 19th inst. resolutions were adopted warmly in favor of the project, and a committee consisting of thirty of our most respectable citizens was appointed to proceed to Brownsville, to represent the city in said convention. A similar delegation has been appointed by Baltimore county.

Mr. Gay, the chief Engineer of the Susquehanna Canal from Columbus, Pa., to tide is now engaged in making a final survey of the first 12 miles of this important work, and the prevailing opinion is, that the canal can be made at a much less expense on the west than on the east side of the river.

The project of a railroad from the Ohio to Charleston, we are pleased to find meets with favor—and to every public work—to every medium of, or plan for, improving the various intercommunications of the country, we say in the sincerity of our heart—God speed the good work.

FOREIGN ABSTRACT.

Advices from Europe to the 10th of October have been received. The news is not important in a political sense. Disaffection to considerable extent prevails in the French army.

MARKETS.

LONDON, Oct. 9. Cotton. Sales are very inconsiderable. The accounts this morning from Liverpool will, it is expected, produce a favorable change; 5,000 bags were sold on Wednesday at rather high prices. There are no purchases of Tobacco to report. There are no sellers of oil in this market, owing to the bad accounts received yesterday of the fishery; by to-day's accounts two more vessels were lost, crews saved. The dates are, however, only up to July, so that no accounts can yet be depended upon, but it looks very unfavorable.

HAVRE MARKETS.—From the 27th Sept., to 3d Oct. Cotton. The sales have continued on an extensive scale, and amount to 6,928 bales, viz: 2888 bales Louisiana, at 124 & 175; 1581 do Georgia and Florida, at 115 & 148; 1500 do Mobile, at 155-60; 156 50, 195 do Alabama, at 130 50-145; 879 do Tennessee, at 120-132. Cottons of superior quality still attract the attention of buyers, and some parcels have brought higher prices, but we do not change our quotations. We are without any direct

and recent intelligence from the United States, but the packet of the 8th Sept. is expected every moment. The accounts from the manufacturing towns continue favorable. Our stock may be estimated at about 45,000 hales.

Coms for "CHILLS AND FEVERS"—by one who has proved its efficacy.

1 oz. peruvian bark.
1 oz. cream of tartar.
1 oz. cloves.

1 pint port wine.

Take a wine glassful 20 minutes before each meal, and after missing the chills, continue to take a wine glassful before breakfast for 3 or 4 weeks.

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and R. & R. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business, and set forth in so plain and methodical a manner that every one can understand them and by a very few hours, attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture, and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy 50 cents.

Liberal discounts made to the trade.
Nov 24

MULBERRY TREES AND SEEDS.

Chinese Mulberry or Morus Multicaulis of various sizes at reduced prices.

150,000 White Italian Mulberry at very low rates by the 1000 or larger quantities.

900 lbs. White Italian Mulberry seed.

Also the following superior large sized trees which now form a Mulberry orchard—but must be removed:

2000 Chinese Mulberry 3 years old 7½ to 8 feet high.

2000 do do 2 do 5½ to 6 do

2000 do do 3 do and budded on the White Mulberry which have proved to be much more hardy than those from cuttings.

These 6000 trees are the greatest acquisition that any silk culturist can possibly obtain, and there is not another equally valuable collection for sale in the Union, as those who have such will not part with them.

50,000 cuttings of the Chinese mulberry at reasonable rates by the 1000, &c.

The New Catalogues of Garden and Flower seeds are just published, comprising the largest assortment ever offered for sale, and including all the choice new varieties. Venders will be supplied in any quantities at very low rates and a liberal credit.

The subscribers will enter into contracts to supply any number of Chinese or White Italian Mulberries on very reasonable terms.

Fruit and Ornamental Trees of all kinds, Garden seeds, Bulbous roots, Green-house plants, and every other article promptly supplied and at very moderate prices.

N. B. Pear trees of large size.—Catalogues will be sent to every applicant.

Wm. PRINCE & SONS.

Nov 17

41

FOR SALE.

A DURHAM Short-horn bull 15-16 blood. He is from a fine cow and got by Col. Poole's celebrated bull Monk—now two years old. Price, delivered at York, \$130.

Letters addressed to the editor post paid, will be attended to.

Nov 10

st

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday.

| | PER. | FROM | TO |
|---------------------------------|---------|------------------|----------|
| BEANS, white field, | bushel. | 2 50 | |
| CATTLE, on the hoof, | 100lbs. | 4 50 | 5 25 |
| CORN, yellow, old 95 to 100 | bushel. | 50 to 65 | |
| White, do 100 to 105 | " | 50 to 65 | |
| COTTON, Virginia, | pound. | 184 | |
| North Carolina, | " | 184 | 20 |
| Upland, | " | 37 | 40 |
| FEATHERS, | pound. | 1 25 | 1 374 |
| FLAXSEED, | bushel. | 8 00 | 8 50 |
| FLOUR & MEAL—Best wh. wh't fam. | barrel. | 6 25 | |
| Do. do. baker's. | " | 6 75 | 6 874 |
| Do. do. Superfine, | " | 6 50 | |
| SuperHow. st. in good de'd | " | 6 624 | |
| " wagon price, | " | 6 50 | |
| City Mills, extra, | " | 6 624 | |
| Susquehanna, firm & scarce | " | 6 124 | 6 25 |
| Rye, | " | 4 50 | 4 63 |
| Kiln-dried Meal, in hds. | hhd. | 19 50 | 20 00 |
| do. in bbls. | bbl. | 4 124 | |
| GRASS SEEDS, red Clover, | bushel. | 5 00 | 5 75 |
| Timothy (herds of the north) | " | 2 75 | 3 25 |
| Orchard, | " | 2 25 | 3 00 |
| Tall meadow Oat, | " | 2 00 | 2 50 |
| Hards, or red top, | " | 1 00 | 1 25 |
| HAY, in bulk, | ton. | 15 | 15 00 |
| Hemp, country, dew rotted, | pound. | 6 | 7 |
| " water rotted, | " | 7 | 8 |
| Hoes, on the hoof, | 100lb. | 7 00 | 7 50 |
| Slaughtered, | " | 124 | |
| Hops—first sort, | pound. | 10 | |
| second, | " | 8 | |
| refuse, | " | 8 | |
| LIME, | bushel. | 33 | 35 |
| MUSTARD SEED, Domestic, | " | 5 00 | 6 00 |
| OATS, | " | 40 | 42 |
| PEAS, red eye, | bushel. | — | — |
| Black eye, | " | — | 1 25 |
| Lady, | " | — | — |
| PLASTER PARIS, in the stone, | ton. | 3 50 | |
| Ground, | barrel. | 1 25 | |
| PALMA CHRISTA BEAN, | bushel. | 2 00 | |
| RAGS, | pound. | 3 | 4 |
| RYE, | bushel. | 80 | 85 |
| Susquehannah, | " | none | |
| TOBACCO, crop, common, | 100 lbs | 5 00 | 5 50 |
| " brown and red, | " | 5 00 | 7 00 |
| " fine red, | " | 7 00 | 9 00 |
| " wavy, suitable | " | 5 00 | 10 00 |
| for segars, | " | 8 00 | 12 00 |
| " yellow and red, | " | 11 00 | 16 00 |
| " good yellow, | " | 12 00 | 16 00 |
| " fine yellow, | " | 4 75 | 5 00 |
| Seconds, as in quality, | " | 5 00 | 8 00 |
| " ground leaf, | " | 6 00 | |
| Virginia, | " | — | — |
| Rappahannock, | " | — | — |
| Kentucky, | " | 8 00 | 14 00 |
| WHEAT, white, | bushel. | 1 45 | 1 50 |
| Red, | " | 1 35 | 1 44 |
| WHISKEY, 1st p. in bbls. | gallon. | 37 | 374 |
| " in hds. | " | 334 | |
| " wagon price, | " | 30 | bbds. |
| WAGON FREIGHTS, to Pittsburgh, | 100 lbs | 1 50 | — |
| To Wheeling, | " | 1 75 | — |
| Wool, Prime & Saxon Fleece, | pound. | washed. unwashed | |
| Full Merino, | " | 62 to 75 | 32 to 34 |
| Three fourths Merino, | " | 62 | 62 30 32 |
| One half do, | " | 47 | 52 28 30 |
| Common & one fourth Meri. | " | 42 | 47 26 28 |
| Pulled, | " | 38 | 42 25 25 |
| | " | 38 | 42 28 28 |

2,000 MORUS MULTICAULIS.

FOR SALE by R. Sinclair, Senr., at Clarendon Nursery, 2,000 Morus Multicaulis trees (the Chinese Mulberry.) These trees are between 7 and 8 feet high, and if planted out this fall, might be fed from to advantage next spring. Persons desirous of purchasing, would do well to make early application. Their superiority for feeding silk worms is universally admitted.

Nov 24

BALTIMORE PROVISION MARKET.

| | PER. | FROM | TO |
|--------------------------------------|---------|-------|-------|
| APPLES, | barrel. | — | — |
| BACON, hams, new, Balt. cured. | pound. | 11 | — |
| Shoulders, do | " | 10 | — |
| Middlings, do | " | 84 | 9 |
| Assorted, country, | " | 7 | 8 |
| BUTTER, printed, in lbs. & half lbs. | " | 184 | 25 |
| Roll, | " | 20 | — |
| CIDER, | barrel. | — | — |
| CALVES, three to six weeks old, | each. | 3 00 | 6 00 |
| Cows, new milch, | " | 17 00 | 30 00 |
| Dry, | " | 8 00 | 12 00 |
| CORN MEAL, for family use, | 100lbs. | 1 15 | 1 87 |
| CROP RYE, | " | 1 68 | 1 75 |
| Eggs, | dozen. | — | — |
| FISH, Shad, No. 1, Susquehanna, | barrel. | 7 75 | — |
| No. 2, | " | 6 75 | — |
| Herrings, salted, No. 1, | " | 4 00 | 4 19 |
| Mackerel, No. 3, | " | 5 75 | — |
| Cod, salted, | cwt. | 3 00 | 35 0 |
| LARD, | pound. | 10 | 10 |

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

| | | |
|--------------------------|--------------|------------------------------|
| U. S. Bank, | — | VIRGINIA. |
| Branch at Baltimore, | — | Farmers Bank of Virginia 1/2 |
| Other Branches, | — | Bank of Virginia, — do |
| MARYLAND. | — | Branch at Fredericksburg do |
| Banks in Baltimore, | — | Petersburg, — do |
| Hagerstown, | — | Norfolk, — do |
| Frederick, | — | Winchester, — do |
| Westminster, | — | Lynchburg, — do |
| Farmers' Bank of Mary'd, | do | Danville, — do |
| Do. payable at Easton, | 5 per ct. do | Bank of the Valley, — do |
| Salisbury, — | 5 per ct. do | Branch at Romney, — do |
| Cumberland, | — | Do. Charlestown, — do |
| Millington, | — | Do. Leesburg, — do |
| DISTRICT. | — | Wheeling Banks, — 1/2 |
| Washington, | — | Ohio Banks, generally 1/2 |
| Georgetown, | — | New Jersey Banks, 1/2 |
| Alexandria, | — | New York City, — 1/2 |
| PENNSYLVANIA. | — | New York State, — 1/2 |
| Philadelphia, | — | Massachusetts, — 2/3 |
| Chambersburg, | — | Connecticut, — 2/3 |
| Gettysburg, | — | New Hampshire, — 2/3 |
| Pittsburg, | — | Maine, — 2/3 |
| York, | — | Rhode Island, — 2/3 |
| Delaware [under \$5], | — | North Carolina, — 1/2 |
| Do. [over 5], | — | South Carolina, — 1/2 |
| Michigan Banks, | — | Georgia, — 1/2 |
| Canadian | — | New Orleans, — 1/2 |

A GREAT BARGAIN.

A full blooded Improved Durham Short-horn bull rising each, 7-8 bred, has been left with the editor of the Farmer and Gardener for sale. These are first rate animals, and would be sold a bargain, if application be made promptly.

All applications by letter must be post paid.

Nov 17

3t.

TO AGRICULTURISTS.—The analysis of Soils, marls, mineral waters, and other productions, interesting to those engaged in Agricultural pursuits, is performed with promptness and accuracy, by

TYSON & FISHER, Chemists, no 3 Druggists, No. 192 Market street, Baltimore.

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